Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) A method for tracking ~~the~~ a maximum power point of a solar panel, comprising:

(a) providing a pulsewidth modulated (PWM) DC/DC converter between ~~the~~ an output of said panel and a load, and

(b) introducing a perturbation into a switching parameter of said converter

(c) determining input characteristics of said converter;

(d) using said input characteristics to determine said maximum power point.

2. (currently amended) A method as claimed in claim 1 wherein said parameter is ~~the~~ a duty cycle of at least one switching device in the converter.

3. (currently amended) A method as claimed in claim 1 wherein said parameter is ~~the~~ a switching frequency of at least one switching device in the converter.

4. (currently amended) Apparatus for tracking ~~the~~ a maximum power point of a solar panel, comprising:

(a) a pulsewidth modulated (PWM) DC/DC converter between ~~the~~ an output of the solar panel and a load, and

(b) means for introducing a perturbation into a switching parameter of said converter

(c) means for determining input characteristics of said converter;

(d) means for determining said maximum power point from said input characteristics.

5. (currently amended) Apparatus as claimed in claim 4 wherein said converter operates in switching mode and said perturbation means comprises means for introducing a perturbation into ~~the~~ a duty cycle of at least one switching device of said converter.

6. (currently amended) Apparatus as claimed in claim 4 wherein said converter operates in switching mode and said perturbation means comprises means for introducing a perturbation into ~~the~~ a switching frequency of at least one switching device of said converter.

7. (currently amended) Apparatus as claimed in claim 4 wherein said converter ~~is a~~ comprises one of the group consisting of a SEPIC ~~or~~ converter and a Cuk converter.

8. (new) A method as claimed in claim 2 wherein said input characteristics comprise a maximum variation in an input voltage and a voltage stress in said at least one switching device.

9. (new) A method as claimed in claim 3 wherein said input characteristics comprise a maximum variation in an input voltage and an average value of said input voltage in said at least one switching device.

10. (new) Apparatus as claimed in claim 5 wherein said input characteristics comprise a maximum variation in an input voltage and a voltage stress in said at least one switching device.

11. (new) Apparatus as claimed in claim 6 wherein said input characteristics comprise a maximum variation in an input voltage and an average value of said input voltage in said at least one switching device.